

Amendments to the Specification:

On page 1, please amend the paragraph starting at line 10 as follows:

-- Such a sensor is presented, for example, in ~~EP 0 791 826 A1~~
United States Patent 5,942,190. --

On page 2, please amend the paragraph starting at line 17 as follows:

-- The adjustment of the voltage on the electrodes takes place in this case advantageously by changing these factors. These factors are increased until the system starts to oscillate because of the feedback. The oscillation arises when the feedback factor is ≥ 1 in magnitude and, at the same time, the phase is greater than or equal to 180° . Then, the factors are reduced slightly but only so far that just no oscillation occurs anymore. In this way, almost all voltage drops, which arise at the electrode feed lines, as well as the voltage drops which arise because of a fictive resistance network within the solid state electrolytes, can be compensated. --

In the Abstract:

On page 10, please amend the paragraph starting at line 2 as follows:

-- Method for operating a sensor for determining the concentration of oxidizing gases in gas mixtures, especially of the nitrogen oxide concentration in exhaust gases of internal combustion engines, wherein the sensor includes: at least one chamber (1; 2) mounted in a solid state electrolyte (20), the chamber being connected to the gas mixture via a first diffusion barrier (4); a second chamber (3) arranged in the solid state electrolyte (20) and the chamber having a pregivable constant oxygen partial pressure; on the solid state electrolyte, an oxygen pump electrode (9) subjected to the exhaust gas; a further oxygen pump electrode (7; 8) as well as an NO pump electrode (10) in the at least one chamber (1; 2); and an oxygen reference electrode (6) arranged in the second chamber (3); and at least a voltage is made available at the electrodes and at least a pump current is evaluated as a measurement ~~signal~~, is signal. The method is characterized in that the voltages (U_{IPE} ; U_{O_2} ; U_{NO}), which are applied to the electrodes, are changed in dependence upon the currents, which flow in the electrode feed lines and/or between the electrodes (6; 7; 8; 9; 10), during operation of the sensor in such a manner that the voltages correspond to pregivable desired values, these voltages being applied to the electrodes (6; 7; 8; 9; 10) in the interior of the sensor. --